APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,973	05/21/1999	SHASHANK MERCHANT	50100-783	7187

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EXAMINER
LY, ANH VU H

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 05/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

    A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-18_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-6 and 14-18_ is/are rejected.

7) ☒ Claim(s) _7-13_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on _21 May 1999_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _2_ .   6) ☐ Other:

DETAILED ACTION

Drawings

1.   The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5)

because they do not include the following reference sign(s) mentioned in the

description: Fig. 5 does not indicate reference numeral "120" as mentioned on page 10,

line 13 in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-6 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kerstein et al. (US Patent No, 6,058,112) in view of Sheu et al. (US Patent No.

6,310,860). Hereinafter, referred to as Kerstein and Sheu.

With respect to claim 1, Kerstein discloses in Figure 1, a packet switched

network, which includes an integrated multiport switch 12 that enables communication

of data packets between network stations (a multiport data communication system for

transferring data packets between ports).

Kerstein discloses (col. 3, lines 31-35 and Figure 1) that the network 10 includes

a series of switch transceivers 20 that perform time division multiplexing and time

division demultiplexing for data packets transmitted between the multiport switch 12 and

the 10 Mb/s stations (a plurality of ports for receiving and transmitting data packets).

Kerstein discloses (col. 4, lines 10-12 and Figure 1) that the multiport switch 12 includes an internal decision making engine that selectively transmits data packets received from one source to at least one destination station (a decision making engine responsive to received data packets for directing the received data packets to the ports selected for transmission of the received data packets).

Kerstein discloses in Figure 3, a plurality of queuing devices such as 64s, 66s and 67s, for queuing data packets (a plurality of queuing devices corresponding to the plurality of ports for queuing data blocks representing the data packets received by the corresponding ports).

Kerstein discloses (col. 5, lines 19-22) that the header of the received packet is forwarded to a decision making engine to determine which MAC ports will output the data packet (logic circuitry responsive to the plurality of queuing devices for processing the data blocks in accordance with a prescribed algorithm to determine destination information).

Kerstein discloses (col. 7, lines 7-15) that the ERCI 42 outputs the forwarding decision to switch subsystem 70. The switch subsystem 70 fetches the data packet identified in the port vector from the external memory 34 via the external memory interface 32, and supplies the retrieved data packet to the appropriate transmit FIFO 66 of the identified ports. The switch subsystem may send a given data packet to either a single port, multiple ports, or all ports based on the output from ERC44 (a forwarding circuit responsive to the logic circuitry for identifying at least one transmit port).

Kerstein discloses (see Abstract) that a network switch data decision making

engine diagnosed while the switch is operating and the operation of the decision making

engine can be checked by an external device such as a logic analyzer.

Kerstein does not disclose a traffic capture mechanism for enabling one port to

output data transferred via selected ports of plurality of ports.

Sheu discloses (see Abstract) a method for traffic monitoring ports of a network

switch in which the control gates are connected to monitoring bus and a configuration

bus. The users can apply the control gates to dominate the traffic direction via the

configuration bus, using the monitoring bus to transfer communication materials. This

makes the traffic of any port monitored by the other port.

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to include a method for traffic monitoring in Kerstein's

switching network, as disclosed by Sheu, to monitor data packets and collect related

information for network analysis.

With respect to claim 2, Sheu discloses (col. 2, lines 53-55 and Figure 3) that

port 18 is chosen as a sniffer port (one port is a sniffer port for connecting to a probe for

monitoring data traffic).

With respect to claim 3, Sheu discloses (col. 2, lines 62-65) that materials from

user devices 14 are sent directly to the sniffer 18, and the content of the traffic of user

devices 14 is monitored by the sniffer 18 (multiple other selected ports are multiple

sniffed ports monitored by the probe via the sniffer port).

With respect to claim 4, the limitation, traffic capture mechanism comprises a

sniffer port configuration circuit for selecting the sniffer port among plurality of ports, is

inherently disclosed by Sheu. Sheu discloses (col. 2, lines 53-55 and Figure 3) that port

18 is chosen as a sniffer port. This means, port 18 can be configured by an agent or by

some sort of configuration circuits for choosing port 18 as a sniffer port.

With respect to claim 5, the limitation, traffic capture mechanism comprises a

sniffed port configuration circuit for selecting the multiple sniffed ports among plurality of

ports, is inherently disclosed by Sheu. Sheu discloses in Figure 3, user devices 14

monitored by a sniffer port 18. This means, user devices 14 is configured to be

monitored by an agent or by some sort of configuration circuits for choosing user

devices 14 to be monitored.

With respect to claim 6, the limitation, sniffer port is configured to enable and

disable monitoring of data traffic on the multiple sniffed ports, is inherently disclosed by

Sheu. Sheu discloses (col. 2, lines 62-65) that materials from user devices 14 are sent

directly to the sniffer 18, and the content of the traffic of user devices 14 is monitored by

the sniffer 18. This means, sniffer port is configured to enable and disable as a function

of sniffed port 14.

With respect to claim 14, Kerstein discloses (col. 4, lines 35-41) that data packets from a network station are received by the corresponding MAC port and stored in the corresponding receive FIFO 64. The received data packet is output from the corresponding receive FIFO 64 to the external memory interface 32 for storage in the external memory 34 (placing data blocks in a plurality of data queues to be processed by the decision making engine).

Kerstein discloses (col. 5, lines 19-22) that the header of the received packet is forwarded to a decision making engine to determine which MAC ports will output the data packet (processing the data queues by logic circuitry in accordance with a prescribed algorithm to determine destination information).

Kerstein discloses (col. 7, lines 7-15) that the ERCI 42 outputs the forwarding decision to switch subsystem 70. The switch subsystem 70 fetches the data packet identified in the port vector from the external memory 34 via the external memory interface 32, and supplies the retrieved data packet to the appropriate transmit FIFO 66 of the identified ports. The switch subsystem may send a given data packet to either a single port, multiple ports, or all ports based on the output from ERC44 (identifying at least one port for transmitting data packets based on the destination information).

Kerstein does not disclose selecting multipled sniffed ports among the plurality of ports for monitoring the data packets transferred via the sniffed ports and selecting a sniffer port among the plurality of ports to provide output of the data packets transferred via the sniffed ports.

Sheu discloses (see Abstract) a method for traffic monitoring ports of a network

switch in which the control gates are connected to monitoring bus and a configuration

bus. The users can apply the control gates to dominate the traffic direction via the

configuration bus, using the monitoring bus to transfer communication materials. This

makes the traffic of any port monitored by the other port. Further, Sheu discloses in

Figure 3, user devices 14 is chosen as sniffed port out among a plurality of ports and

port 18 is chosen as sniffer port among the plurality of ports.

Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to include a method for traffic monitoring in Kerstein's

switching network, as disclosed by Sheu, to monitor data packets and collect related

information for network analysis.

With respect to claim 15, Sheu discloses in Figure 3, user device 14 is identified

as one of the sniffed ports (determining whether a port that received a data packet is

one of the multiple sniffed ports).

With respect to claim 16, Sheu discloses (col. 2, lines 62-65) that materials from

user devices 14 are sent directly to the sniffer 18, and the content of the traffic of user

devices 14 is monitored by the sniffer 18 (sniffer port is identified at least one of the

ports for transmitting data packet, if the port received data packet is one of the multiple

sniffed ports).

With respect to claim 17, Sheu discloses in Figure 3, user device 14 is identified as one of the sniffed ports (determining whether the destination information indicates at least one of the multiple sniffed ports is selected for transmitting a data packet).

With respect to claim 18, Sheu discloses (col. 2, lines 62-65) that materials from user devices 14 are sent directly to the sniffer 18, and the content of the traffic of user devices 14 is monitored by the sniffer 18 (sniffer port is identified as a port for transmitting data packet, if at least one of the multiple sniffed ports is selected for transmitting the data packet).

Allowable Subject Matter

4.   Claims 7-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Abdelnour et al. (U.S. Patent No. 6,112,241) discloses a LAN switch including a conventional switching function and integrated remote monitoring universal feature card.

Schwartz et al. (U.S. Patent No. 6,185,214) discloses a network bridge/router for analyzing a received data unit and for generating plural code vectors.

Walker et al. (U.S. Patent No. 6,233,613) discloses a high impedance probe for monitoring fast Ethernet LAN links.

Golan et al. (U.S. Patent No. 6,044,400) discloses a switch monitoring system having a data collection device using filter in parallel orientation and filter counter for counting combination of filtered events.

Fletcher et al. (U.S. Patent No. 6,108,782) discloses a distributed remote monitoring (dRMON) to collect traffic statistics.

Drysdale et al. (U.S. Patent No. 6,058,102) discloses a method and apparatus for performing service level analysis of communications network performance metrics.

Stelzer, E.E. et al. "Embedding RMON in large LAN switches". IEEE Network, Jan. – Feb. 1999, volume 13, issue 1, pages 63 – 72.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

4750.

avl
May 7, 2002

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